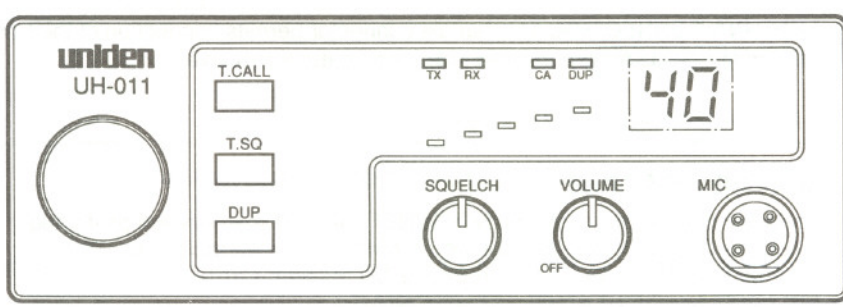
uniden®

UHF CB TRANSCEIVER

OWNER'S MANUAL

SUNDOWNER UH-011



DESCRIPTION

Your UNIDEN Model SUNDOWNER UH-011 represents one of the most advanced Mobile Station type radio ever designed for use in the Citizens Band Radio Service. It will operate on any of the 40 frequencies designated as citizens band channels by the Department of Communications. Your Model SUNDOWNER UH-011 features a frequency synthesizing circuit with PHASE LOCK LOOP techniques to assure ultraprecise Frequency control. This radio has been Type Accepted and Type Certified by the D.O.C.

WARNING

Before transmitting with your transceiver, you must obtain a Department of Communications (D.O.C.) Citizens Radio Licence. Obtain an application form from the D.O.C. Before completing the form you should read the conditions governing the licensing and operation of the C.R.S. A brochure can be obtained from the D.O.C. After completing the application form, mail it with the appropriate fee to the Superintendant Regulatory of Licensing in the State or territory in which the station will be operated.

CHANNEL INFORMATION

This radio has been designed to provide high level performance in the Citizens Band Radio Service, which is comprised of the following frequency assignments:

Channel	Channel Frequency in MHz	Channel	Channel Frequency in MHz	Channel	Channel Frequency in MHz
1	476.425	15	476.775	29	477.125
2	476.450	16	476.800	30	477.150
3	476.475	17	476.825	31	477.175
4	476.500	18	476.850	32	477.200
5	476.525	19	476.875	33	477.225
6	476.550	20	476.900	34	477.250
7	476.575	21	476.925	35	477.275
8	476.600	22	476.950	36	477.300
9	476.625	23	476.975	37	477.325
10	476.650	24	477.000	38	477.350
11	476.675	25	477.025	39	477.375
12	476.700	26	477.050	40	477.400
13	476.725	27	477.075		
14	476.750	28	477.100		

DUPLEX OPERATING FREQUENCIES

CHANNEL	RX	TX
CH1	476.425 MHz	477.175 MHz (CH31)
CH2	476.450 "	477.200 " (CH32)
CH3	476.475 "	477.225 " (CH33)
CH4	476.500 "	477.250 " (CH34)

CHANNEL	RX	TX
CH5	476.525 MHz	477.275 MHz (CH35)
CH6	476.550 "	477.300 " (CH36)
CH7	476.575 "	477.325 " (CH37)
CH8	476.600 "	477.350 " (CH38)

INSTALLATION

MOBILE STATION INSTALLATION

Plan the location of the transceiver and microphone bracket before starting the installation. Select a location that is convenient for operation and does not interfere with the driver or passenger in the vehicle. The radio should be securely fastened to some solid face, using the mounting bracket and self-tapping screws which are provided.

MOBILE STATION ANTENNA

Since the maximum allowable power output of the transmitter is limited by the D.O.C., the antenna is a very important factor affecting transmission distance. It is for this reason that we strongly recommend that you install only a quality antenna in your new citizens band system. You have just purchased a superior transceiver. Don't diminish its performance by installing an inferior antenna.

Only a properly matched antenna system will allow maximum power transfer from the 50-ohm transmission line to the radiating element. Your Uniden dealer is qualified to assist you in the selection of the proper antenna to meet your application requirements.

For automobile installation, the whip antenna may be used with good effect. The most efficient and practical installation is a full quarter wave whip antenna mounted on the rear deck or fender top midway between the rear window and bumper.

A short "loaded" whip antenna is more convenient to install on your automobile, although the efficiency is less than a full quarter wave whip antenna.

For marine installation, consult your dealer for information regarding an adequate grounding system and prevention of electrolysis between fittings in the hull and water.

GROUND SYSTEM

Connect the red DC power cord from the transceiver to the positive, or (+), battery terminal or other convenient point and connect the black power lead to the chassis or vehicle frame, or (−) battery terminal.

SELCALL

SELCALL (Selective Calling) is a special Squelch System which quiets your receiver until it receives an Encoded signal from another set which matches the one installed in your set. This means your set will remain quiet and not receive idle chit chat or other signals until the station you want to hear calls.

SELCALL is not initially installed in your set (each one has to be individually programmed) but may be purchased as an option.

OPERATING PROCEDURE TO RECEIVE

1. Be sure that the power source, antenna and microphone are connected to the proper connectors before going to the next steps.

2. Turn the unit **ON** by rotating the **OFF/VOLUME** Control clockwise.

3. Set the **CHANNEL SELECTOR** switch to the desired channel.

4. Set the **OFF/VOLUME** Control to a comfortable listening level.

5. Listen to the background noise from the speaker. Turn the **SQUELCH** control slowly clockwise until the noise **JUST** disappears (no signal should be present). Leave the control at this setting. The **SQUELCH** is now properly adjusted. The receiver will remain quiet until a signal is actually received. Do not advance the control too far, or some of the weaker signals will not be heard.

OPERATING PROCEDURE TO TRANSMIT

CAUTION

The transceiver Voltage Standing Wave Ratio (V.S.W.R.) measurement must be performed prior to the use of the transmitter. A V.S.W.R. ratio in excess of 2:1 may damage the transmitter.

1. Be sure the operator has read and understands D.O.C. Rules and Regulations prior to operating the transmitter.

2. Select the desired channel.

3. If the channel is clear, depress the **PRESS-TO-TALK** switch on the microphone and speak in a normal voice.

PREVENTIVE MAINTENANCE

At six to twelve month intervals, the following system checks should be made:

1. Check Standing Wave Ratio (SWR).

2. Inspect all electrical connections to ensure that they are tight.

3. Inspect antenna coaxial cable for wear or breaks on shielding.

4. Inspect all screws and other mounting hardware for tightness.

OPERATOR TROUBLESHOOTING

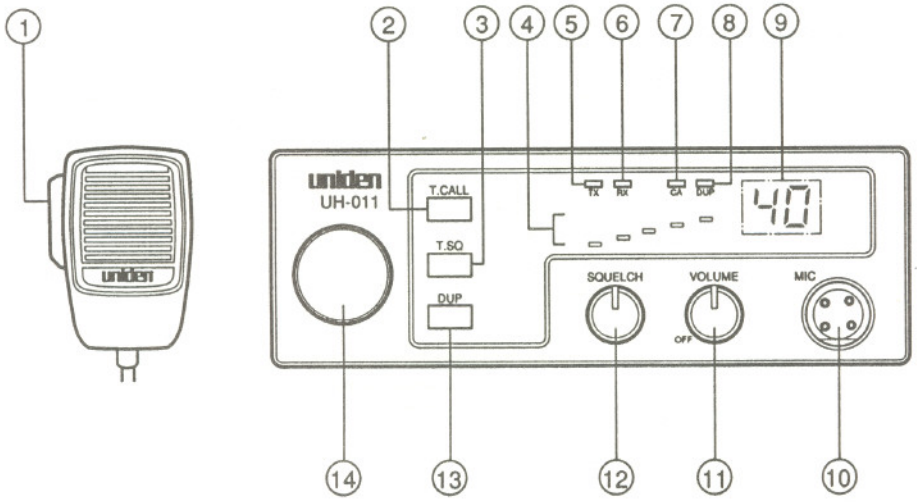
Should the unit malfunction or not perform properly, the operator should perform the procedures indicated below:

1. If the transceiver is completely inoperative.
   * Check the power cord and fuse.

2. If trouble is experienced with receiving.
   * Check **OFF/VOLUME** control setting.
   * Be sure **SQUELCH** is adjusted properly. Is the radio over-squelched?
   * Check to see that the radio is switched to an operational mode.

3. If trouble is experienced with transmitting.
   * Check to see that the transmission line (coaxial cable) is securely connected to the **ANTENNA CONNECTOR**.
   * Be sure that the antenna is fully extended for proper operation.
   * Be sure that all transmission line (coaxial cable) connections are secure and free of corrosion.

CONTROLS AND THEIR FUNCTIONS



1. **PRESS-TO-TALK MICROPHONE:** The receive and transmit are controlled by the **PRESS-TO-TALK** switch on the microphone. Press the switch on the microphone to activate the transmitter; release the switch to receive. When transmitting, hold the microphone two inches from the mouth and speak clearly in a normal voice. The microphone provided with your radio is detachable low impedance dynamic type.

2. **TONE CALL SWITCH:** This switch is reserved for optional **SELCALL** operation. Push the **T. CALL** switch, (when this action is taken, **TX** indicator will flash), then, **TONE SIGNAL** will be generated and it opens the Squelch of the other units which have the same tone squelch function.

3. **TONE SQUELCH SWITCH:** This switch is reserved for optional **SELCALL** operation. Push the **T.SQ** switch while receiving the **TONE SIGNAL**. Then, the Circuit of the **SQUELCH** is automatically opened.

4. **S-INDICATOR:** The signal indicator will illuminate to monitor the relative strength of the signal.

5. **TX INDICATOR:** This **LED** indicates red while transmitting.

6. **RX INDICATOR:** Lights during the receive mode whenever a station is being received, or whenever the **SQUELCH** control is adjusted fully counter clockwise.

7. **TONE CALL INDICATOR:** When a **SELCALL** module is installed: While receiving **TONE SIGNAL**, this **LED** will be on.

8. **DUPLEX INDICATOR:** When the channel indicated by the **CHANNEL INDICATOR** and Duplex memory is programmed, this **LED** is turned on.

9. **CHANNEL INDICATOR: LED** indicates the channel number in use.

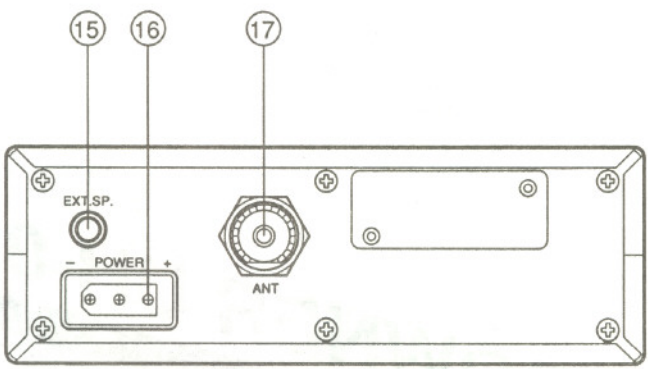
10. **FRONT MICROPHONE SOCKET**

11. **OFF/VOLUME CONTROL:** Turn clockwise to apply power to the radio and to set the audio volume to the desired listening level. Turn fully counterclockwise to turn the radio **OFF**.

12. **SQUELCH CONTROL:** This **SQUELCH** Control is rotated to cut off or eliminates received background noise in the absence of an incoming signal. For maximum receive sensitivity, it is desired that the control be rotated only to this point where the receive background noise or ambient background noise is eliminated. Turn the control fully counterclockwise, then slowly rotate clockwise until the receive noise disappears. Any signal to be heard must now be slightly stronger than the average received noise. Further clockwise rotation will increase the threshold level which a signal must overcome in order to be heard. Only strong signals will be heard at the maximum clockwise setting.

13. **DUPLEX SWITCH:** To program semi-duplex operation for channel 1 through channel 8. Select the channel you would like to use as repeater channel (check your local repeater station frequency first) and push the **DUP** switch and then **DUP** indicator will turn on. Select next repeater channel and push the **DUP** switch again and so on. To put the channel back to normal simplex operation, just select the **DUPLEX** programmed channel by channel selector and push the switch so that the **DUP** indicator turns off to indicate that channel is no longer repeater frequency off-set channel. CH 1 through CH 8 are programmed for the repeater operation.

14. **CHANNEL SELECTOR SWITCH:** This switch selects the desired channel for transmission and reception.



15. **EXTERNAL SPEAKER:** The External Speaker Jack is used for remote receiver monitoring. The external speaker should have 8-ohm impedance and be rated to handle at least 4.0 watts. When the external speaker is plugged in, the internal speaker is automatically disconnected.

16. **POWER:** This jack permits connection of the D.C. power to the transceiver. A power cord is supplied with the radio.

17. **ANTENNA CONNECTOR:** This female connector permits connection of the transmission line cable male connector (M-Type) to the transceiver.

MEMORY BACKUP

Channels maintained in the SUNDOWNER UH-011 memory are protected from less by a built-in capacitor which protects the memory for up to 12 hours when you disconnect the DC Power Cable.

SERVICING YOUR TRANSCEIVER

It is the user's responsibility to see that this radio is operating at all times in accordance with the D.O.C. Citizens Radio Service regulations.
We highly recommend that you consult a qualified radiotelephone technician for the servicing and alignment of this UHF CB radio product.
Please refer to the WARNING information contained in the 2nd page of this Owner's Manual.

OPERATING INSTRUCTIONS

NORMAL OPERATION

RECEIVE OPERATING PROCEDURE

1. Connect the 13.8 Volt power lead, microphone and antenna.

2. Rotate the **SQUELCH** control (12) fully counterclockwise.

3. Switch the radio on by turning the **OFF/VOLUME** control (11) clockwise and adjust for a comfortable volume level, and adjust for a comfortable squelch level.

4. Rotate the **CHANNEL SELECTOR** switch (14) to select the required channel.

TRANSMITTING

To transmit, depress the **PRESS-TO-TALK** switch (1) on the microphone. Hold the microphone 5-10 cm from your mouth and slightly to one side so that your voice does not project directly into the microphone (this provides best results). Speak at a normal level. Never raise your voice or shout into the microphone. Whenever the **PTT** switch is pressed, the **TX** indicator (5) will light.

SPECIFICATIONS

GENERAL

Channels	: 40
Frequency Range	: 476.425 MHz to 477.400 MHz * REPEATER USE (CH-1 to CH-8, TX only): 477.175 MHz to 477.350 MHz
Crystal Oscillator	: 2
Microphone	: 600 ohm, Dynamic Type
Speaker	: 8 ohm, 3W
Antenna Connector	: M-Type
Jacks & Connectors	: Mic 4P Metal EXT SP 3.5ϕ DC Power 3P Type
Controls	: PRESS-TO-TALK Switch OFF/VOLUME Control SQUELCH Control DUPLEX Switch TONE CALL Switch TONE SQUELCH Switch CHANNEL SELECTOR Switch
Indicators	: DUPLEX Indicator TX Indicator RX Indicator TONE CALL Indicator SIGNAL METER CHANNEL Indicator
Cabinet Size	: W: 154.5 mm H: 52.5mm D: 189mm
Weight	: 1.2 kg
Accessories	: DC Power Cable with Built-in fuse, Micro-phone, Microphone Hanger Mounting Bracket Screw (2), Washer (2) For Microphone Hanger Screw (2), Washer (2) For Mounting Bracket

MEASUREMENT CONDITIONS

Power Source	: 13.8V (DC)
Antenna Impedance	: 50 ohm
Test Temperature	: 25°C
Modulation Frequency	: 1 kHz (RX/TX)
Mean Signal Input Level	: 1000 μV
Reference Audio Output Power	: 500mW
Reference Modulation Deviation	: $\pm$3 kHz Deviation
Audio Output Load	: 8 ohms resistive

TRANSMITTER SECTION

Frequency Tolerance at 25°C (5 minutes after switch on)	: ±0.5 kHz
Carrier Power	: Maximum of 5W
Spurious Emission	
In Band	: 5μW
Out Band	: 1μW
Current Drain	: 1500 mA
Modulation Frequency Response: (1 kHz, 0dB reference, at 600 Hz deviation)	
Lower at 500 Hz	: −6 dB
Upper at 2.5 kHz	: +5 dB
Microphone Sensitivity for 3 kHz Deviation	: 1mV
Maximum Deviation	
at 1 kHz	: ±4.75 kHz
at 6 kHz	: ±1.5 kHz MAX

RECEIVER SECTION

Sensitivity for 12 dB SINAD	: 0.25μV
Overall Audio Fidelity (1 kHz, 0 dB reference)	:
Lower at 500 Hz	: +3 dB
Upper at 2.5 kHz	: −8 dB
Adjacent Channel Selectivity (±25 kHz)	: 65 dB
Maximum Audio Output Power	: 3W
Audio Output Power at 10% THD	: 2W
Hum & Noise Ratio at Input 1mV	: 40 dB
Squelch Sensitivity at Threshold	: 0.2μV
Squelch Sensitivity at Tight	: 1μV
Image Rejection Ratio	: 60 dB
IF Rejection Ratio	: 70 dB
Oscillator Dropout Voltage	: 9V
Current Drain at No Signal	: 300mA
Current Drain at Maximum Output	: 600mA

MEMO

WARRANTY

Uniden UH-011 Australian 1 Year Warranty.

Note: Please keep your sales docket as it provides evidence of warranty.

WARRANTOR: Uniden Australia Pty. Ltd.

ELEMENTS OF WARRANTY: Uniden warrants to the original retail owner for the duration of this warranty, its UH-011 UHF CB Product (hereinafter referred to as the Product), to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user only shall terminate and be of no further effect One (1) Year after the date of original retail sale. This warranty will be deemed invalid if the product is (A) Damaged or not maintained as reasonable and necessary, (B) Modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) Improperly installed, (D) Repaired by someone other than an authorised Uniden Repair Agent for a defect or malfunction covered by this warranty, (E) Used in conjunction with any equipment or parts or as part of a system not manufactured by Uniden, (F) Installed, programmed or serviced by anyone other than an authorised Uniden Repair Agent.

PARTS COVERED: This warranty covers the transceiver unit, microphone and power lead only.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, the warrantor will at its discretion, repair the defect or replace the product and return it to you without charge for parts or service. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

WARRANTY CARD: If a warranty card had been included with this product then please fill it in and return it to us within 14 days of purchase. Your name and the serial number of the product will then be registered in our database and this will help us to process your claim with greater speed and efficiency should you require a warranty service on the product.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: In the event that the Product does not conform to this warranty, the Product should be shipped or delivered, freight pre-paid, with evidence of original purchase, (eg/ a copy of the sales docket), to the warrantor at:

uniden AUSTRALIA PTY LTD — SERVICE DIVISION
345 Princes Highway, Rockdale, Sydney. NSW 2216.
Ph (02) 599 3100 Fx (02) 599 3278

Customers in other States should ship or deliver the Product freight pre-paid to their nearest Uniden Authorised Repair Centre. (Contact Uniden for the nearest Warranty Agent to you).

Adelaide (08) 365 2588 Brisbane (07) 290 1188
Melbourne (03) 335 4322 Perth (09) 362 9306

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